

REMARKS / ARGUMENTS

The enclosed is responsive to the Examiner's Office Action mailed on December 28, 2006. At the time the Examiner mailed the Office Action claims 1-14, 16-19, 21-27 and 46-59 were pending. By way of the present response the Applicant has: 1) amended claims 1, 16 and 46; 2) not canceled any claims; and, 3) not added any new claims. As such claims 1-14, 16-19, 21-27 and 46-59 remain pending. The Applicant respectfully requests reconsideration of the present application and the allowance of all pending claims.

Claim Rejections – 35 USC §102

Independent claims 1 and 46 are rejected under 35 U.S.C. 102(e), as being anticipated by Bodin, et al. U.S. Patent 6,061 733 (hereafter Bodin).

The Applicant has amended claims 1 and 46 in response and respectfully submits that the newly presented claims are patentable over the Bodin reference. The newly presented claims emphasize that, as is well known in the art, networking system are viewed as being composed of different "layers" where the each layer has distinctive/representative responsibilities in ensuring proper end-to-end communication. The Applicant has herewith submitted excerpts from a prior art reference, Andrew S. Tanenbaum, Computer Networks, 3rd Ed., Prentice Hall, 1996 (hereinafter, "Tanenbaum"), that explains these various responsibilities in detail. The submitted art describes what is commonly referred to as the "OSI

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model" for breaking down a working network into its constituent layers. For the present response, the pertinent layers are the Transport and Application layers. These are discussed in succession immediately below.

The Transport Layer

With respect to the Transport layer Tanenbaum states

[t]he basic function of the transport layer is to accept data from the session layer, split it up into smaller units if need be, pass these to the network layer, and ensure that the pieces all arrive correctly at the other end. . . . Under normal conditions, the transport layer **creates a distinct network connection** for each transport connection required by the session layer.

Tanenbaum, p. 31 (emphasis added).

With respect to the transport layer used most often for the Internet (the Transmission Control Protocol (TCP)), Tanenbaum specifically states:

The layer above the internet layer in the TCP/IP model is now usually called the transport layer. It is designed to allow peer entities on the source and destination hosts to carry on a conversation, the same as in the OSI transport layer. Two end-to-end protocols have been defined here. The first one, TCP (Transmission Control Protocol) is a reliable **connection-oriented** protocol that allows a byte stream originating on one machine to be delivered without error on any other machine in the internet. It fragments the incoming byte stream into discrete messages and passes each one onto the internet layer. At the destination, the receiving TCP process reassembles the received messages into the output stream. TCP also handles flow control to make sure a fast sender cannot swamp a slow receiver with more messages than it can handle.

Tanenbaum, pp. 36-7 (emphasis added).

The Application Layer

With respect to the Application layer, note that the Application layer resides above the Transport layer (see, e.g., Tanenbaum, Fig. 1-16, p. 29; id., Fig 1-17, p.

34). Tanenbaum also states:

The application layer contains a variety of protocols that are commonly needed. . . . Another application layer function is **file transfer**.

Tanenbaum, p. 33 (emphasis added).

"[With respect to the Internet, on] top of the transport layer is the application layer. It contains all the higher-level protocols. The early ones included . . . **file transfer (FTP)** . . ."

Tanenbaum, p. 37 (emphasis added).

The Bodin Reference

The Bodin reference describes a file transfer invention that aligns perfectly with the perspectives provided above by Tanenbaum. Specifically, the file transfer of Bodin is an application layer function that is supported by an underlying, connection oriented transport layer protocol.

Firstly, Bodin is directed to an Internet application which suggests the use of an underlying TCP transport layer. See, e.g., Bodin, col. 1, lines 14 - 33 (describing the downloading of files over the Internet). Secondly, Bodin specifically states that his invention "provides a method and apparatus for downloading a large file while lowering the probabilities that the large file will result in either a **loss of connection**, time-outs or other system problems." Bodin, col. 2, lines 56-59.

Essentially, the problem of Bodin is that extremely large file downloads cause problems with the underlying transport layer because the size of the file creates connections that need to be kept alive for long periods of time which the network itself may not be able to support. As a consequence, "time-outs" arise

(because packets consume too much time crossing the Internet) resulting in loss of connection. Said another way, the problem of Bodin is that the underlying transport layer "fails" when asked to transport an extremely large data file. The solution of Bodin is, **at the application layer**, to break-up the data file into smaller pieces which are subsequently passed to the underlying transport layer. As a consequence, Bodin teaches **an application layer protocol** that includes the identification of a portion size and portion number.

The Present Application

The Present application, in contrast to the both the state of the prior art as discussed by Tanenbaum and the invention discussed by Bodin, discloses the inclusion of first portion size information at layer that is **not** supported by an underlying transport layer that performs traffic flow regulation, for example, by teaching inclusion of such first portion size information at the transport layer itself. See, e.g., Applicant's specification, p. 11 ("the client transport layer 307 continually requests, in the form of a continuous stream of messages, individual, smaller portions of the response 308")(emphasis added); p. 13 (" . . . the client transport layer 307 is configured to . . . send information to the server transport layer 310. . . so that the server 302 does not send reply messages at a . . . size which exceeds the client's and/or network's capacity . . . ")(emphasis added); p. 16 ("[T]he client transport layer 307 incorporates into the initial request message 309 (e.g., as header information 315) information that is indicative of the client's and/or network's capacity. In an embodiment, this information takes the form of limitations placed on the size of the server's reply.")(emphasis added).

As a consequence, the Applicant has amended independent claims 1 and 16 to recite:

performing the following at said client without regulating traffic flow by an underlying transport layer at said client:

Essentially, the newly presented claims recite the execution of the claimed processes where an underlying transport layer that regulates traffic flow is not employed. This stands in contrast to the state of the prior art at the time the application was filed where similar processes (such as prior art file transfers and the Bodin reference) only comprehend the use of an underlying transport layer that regulates traffic flow.

Therefore the Applicant respectfully submits that newly presented claims 1 and 16 are patentable over the Bodin reference.

Claim Rejections – 35 USC §103

Independent claim 16 stands rejected under 35 U.S.C. 103(a), as being unpatentable over Bodin, in view of RFC 969 “NETBLK: A Bulk Data Transfer Protocol” by Clark, et al., (hereafter RFC969). The NETBLT reference, like the Bodin reference, fails to disclose the introduction of first portion size information at the transport layer. Therefore the combination of NETBLT and Bodin fail to disclose all the claim elements.

CONCLUSION

Because the Applicant has demonstrated the patentability of all pending independent claims, the Applicant respectfully submits that all pending claims are allowable. The Applicant's silence with respect to the dependent claims should not be construed as an admission by the Applicant that the Applicant is complicit with the Examiner's rejection of these claims. Because the Applicant has demonstrated the patentability of the independent claims, the Applicant need not substantively address the theories of rejection applied to the dependent claims.

In the further interests of efficiency, the Applicant reserves the right under MPEP 2144.03.C to cause the Examiner to find in the prior art subject matter to which the Examiner has taken Official Notice at a later time in the prosecution of the present case when the subject matter of such prior art is actually at issue.

For the reasons provided above, applicant respectfully submits that the current set of claims are allowable. If the Examiner believes an additional telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call Robert B. O'Rourke at (408) 720-8300.

Authorization is hereby given to charge our Deposit Account No. 02-2666 for any charges that may be due.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP



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Robert B. O'Rourke
Reg. No. 46,972

12400 Wilshire Boulevard
Seventh Floor
Los Angeles, CA 90025-1030
(408) 720-8300